

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Hisashi OHTANI et al. \_\_\_\_\_

Serial No. 09/593,765 \_\_\_\_\_

Filed: June 14, 2000 \_\_\_\_\_

For: SEMICONDUCTOR DEVICE

COMPRISING FIRST INSULATING FILM, )

SECOND INSULATING FILM COMPRISING )

ORGANIC RESIN ON THE FIRST )

INSULATING FILM, AND PIXEL ELECTRODE)

OVER THE SECOND INSULATING FILM )

) Art Unit: 2811

) Examiner: C. Nguyen

## CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with The United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on June 18, 2003.

*Adeline M. Stanley*

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#24  
Response  
V. McMillan  
7/9/03

ATER FINAL RESPONSE

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The Official Action mailed March 18, 2003, has been received and its contents carefully noted. The Applicants respectfully submit that this response is being timely filed.

The Applicants note with appreciation the consideration of the Information Disclosure Statements filed on June 14, 2000, and July 21, 2000. The Applicants have not received acknowledgment of the Information Disclosure Statement filed on November 13, 2001. The Applicants respectfully request that the Examiner provide an initialed copy of the Form PTO-1449 with the following Official Action evidencing consideration of the Information Disclosure Statement. The Applicants also await consideration of the Information Disclosure Statement filed on April 30, 2003.

Claims 1-52 are now pending in the present application, of which claims 1, 8, 15, 23, 31, 36, 42 and 48 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance.

The Official Action rejects claims 1-4, 6-11, 13-18, 20-26, 28-30 and 48-51 as obvious based on the combination of U.S. Patent No. 5,153,142 to Hsieh and U.S. Patent No. 5,273,910 to Tran et al. The Official Action rejects claims 5, 12, 19, 27, 31-47 and 52

as obvious based on the combination of Hsieh, Tran and U.S. Patent No. 5,027,185 to Liauh. The Applicants respectfully traverse the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2143-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims. Hsieh and Tran do not teach or suggest that the planarization layer 53 in Tran's device should be formed over the isolation layer 20 in Hsieh's device. Since Hsieh and Tran do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained.

Furthermore, there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Hsieh and Tran or to combine reference teachings to achieve the claimed invention. The Official Action asserts that Tran teaches that the planarization layer 53 can be a stack of insulating layers, and that it would have been obvious to one of ordinary skill in the art to form the polyimide layer of Tran on top of the isolation layer 20 in Hsieh's device (p. 5, Paper No. 21). The Applicants respectfully disagree. Just because the planarization layer 53 of Tran can be made of multiple layers does not motivate or instruct one of ordinary skill in the art to modify the Hsieh device by adding a polyimide layer to the

Hsieh device, and specifically form the polyimide layer in between the isolation layer 20 and, presumably, the passivation layer 42 of Hsieh.

Even if Hsieh and Tran are combined, the Applicants respectfully submit that the claimed feature of the second insulating film comprising an organic resin formed over the first inorganic insulating film is not suggested by the combination of Hsieh and Tran. The layer 53 might be formed under the layer 20 in Hsieh's device. In other words, there is no teaching in Hsieh and Tran that the layer 53 should be formed over the silicon oxide layer 20 in Hsieh's device. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. See MPEP 2143.01.

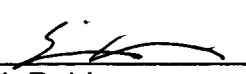
In the present application, it is respectfully submitted that the prior art of record, alone or in combination, does not expressly or impliedly suggest the claimed invention and the Official Action has not presented a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

Liauh does not cure the deficiencies in Hsieh and Tran. The Official Action relies on Liauh to teach a second conductive film of TiN. Hsieh, Tran and Liauh, either alone or in combination, do not teach or suggest that the planarization layer 53 in Tran's device should be formed over the isolation layer 20 in Hsieh's device. Since Hsieh, Tran and Liauh do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained.

For the reasons stated above, the Official Action has not formed a proper *prima facie* case of obviousness. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,



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